This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. ***(currently** amended)* A modified human catalase polypeptide having a carboxy-terminal peroxisome targeting signal (PTS) that has been modified from a native sequence of Lys-Ala-Asn-Leu (SEQ ID NO: 1) by replacement of SEQ ID NO:1 in human catalase with a PTS comprising the sequence Xaa_{-3}-Xaa_{-2}-Xaa_{-1}, wherein, independently,

Xaa_{-3} is Ser, Ala or Cys;

Xaa_{-2} is Lys, Arg or His; and

Xaa_{-1} is Leu or Met, and

wherein the replacement sequence comprises, to the amino-terminal side of Xaa_{-3}, ***n*** additional amino acid residues wherein ***n*** is an integer between 2 and about 17, the additional residues being numbered sequentially from Xaa_{-4} for the first additional residue to Xaa_{-20} for the seventeenth additional residue.

2. **CANCELED**

3. ***(currently** amended)* The modified catalase polypeptide of claim 1[[2]], wherein ***n*** is between about 5 and about 17.

4. *(previously presented)* The modified catalase polypeptide of claim 3, wherein ***n*** is between about 7 and about 13.

5. *(previously presented)* The modified catalase polypeptide of claim 3, wherein ***n*** is between about 9 and about 11.

6. *(previously presented)* The modified catalase polypeptide of claim 3, wherein ***n*** is 9.

7. ***(currently** amended)* The modified catalase polypeptide of claim 1[[2]], wherein

(i) when ***n*** is at least [[1, 2 or]] 3, [[and]] residues at any one of Xaa_{-6} to Xaa_{-4} are hydrophobic amino acids; and

(ii) when ***n*** is at least 2, residues at any one of Xaa_{-5} and Xaa_{-4} are hydrophobic amino acids.

8. *(previously presented)* The modified catalase polypeptide of claim 7, wherein residues at any one of Xaa_{-6} to Xaa_{-4} are, independently, Leu, Val, Ile, Ala or Gly.

9. ***(currently** amended)* The modified catalase polypeptide of claim 1[[2]], wherein ~~*n* is at least 1, and~~ residue Xaa_{-4} is a positively ~~negatively~~ charged amino acid.

10. *(previously presented)* The modified catalase polypeptide of claim 9, wherein residue Xaa_{-4} is Lys, Arg or His.

11. *(previously presented)* The modified catalase polypeptide of claim 10, wherein residue Xaa_{-4} is Lys.

12. *(previously presented)* The modified catalase polypeptide of claim 1, wherein Xaa_{-3} is Ser, Xaa_{-2} is Lys, and Xaa_{-1} is Leu.

13. to 18. CANCELED

20. *(previously presented)* A pharmaceutical composition comprising:
    (a) the modified catalase polypeptide of claim 1; and
    (b) a pharmaceutically acceptable excipient or carrier.

21. ***(currently** amended)* A pharmaceutical composition comprising:
    (a) the modified catalase polypeptide of claim 3[[2]]; and
    (b) a pharmaceutically acceptable excipient or carrier.

22. CANCELED

23. *(withdrawn)* A deliverable, peroxisomally-targeted polypeptide comprising:
    (a) the modified catalase polypeptide of claim 1, and
    (b) a delivery or translocation molecule or moiety bound thereto or associated therewith.

24. *(withdrawn; **currently** amended)* A deliverable, peroxisomally-targeted polypeptide comprising:
    (a) the modified catalase polypeptide of claim 1[[2]], and
    (b) a delivery or translocation molecule or moiety bound thereto or associated therewith.

25. CANCELED

26. *(withdrawn)* The deliverable, peroxisomally targeted polypeptide of claim 23, wherein the delivery molecule is a peptide or polypeptide.

27. to 28. CANCELED

29. *(withdrawn)* The deliverable polypeptide of claim 26 wherein the peptide or polypeptide is selected from the group consisting of

(a) HIV-TAT protein or a translocationally active derivative thereof,
(b) penetratin having the sequence RQIKIWFQNRRMKWKK (SEQ ID NO: 4),
(c) a penetratin variant W48F having the sequence RQIKIFFQNRRMKWKK (SEQ ID NO: 5)
(d) a penetratin variant W56F having the sequence RQIKIWFQNRRMKFKK (SEQ ID NO: 6)
(e) a penetratin variant having the sequence RQIKIWFQNRRMKFKK (SEQ ID NO:7)
(f) herpes simplex virus protein VP22 or a translocationally-active homologue thereof from a different herpes virus; and
(g) Pep-1, having the sequence KETWWETWWTEWSQPKKKRKV (SEQ ID NO:9).

30 to 33. CANCELED

34. *(withdrawn)* The deliverable polypeptide of claim 23 wherein the delivery moiety associated with the modified catalase is a liposome which comprises effective concentrations of external membrane phosphatidylserine for uptake by phagocytic cells or other phosphatidylserine-recognizing cells.

35. *(previously presented)* A method for reducing the concentration of hydrogen peroxide in a cell, comprising contacting said cell with a modified catalase polypeptide of claim 1, under conditions wherein said polypeptide is targeted to peroxisomes in an amount sufficient to reduce said concentration.

36. *(withdrawn)* The method of claim 35, wherein the modified catalase polypeptide further comprises a delivery or translocation molecule or moiety bound thereto or associated therewith.

37 to 40 CANCELED

41. *(previously presented)* The method of claim 35, wherein the contacting is *in vitro*.

42. *(withdrawn)* The method of claim 35, wherein the contacting is in vivo.

43 to 44 CANCELED

45. *(withdrawn)* A method for treating a mammalian subject suffering from a disease or condition associated with or caused by an inadequate level of peroxisomally active catalase, comprising administering to the subject an effective amount of the modified catalase polypeptide of claim 1.

46. *(withdrawn)* A method for treating a subject suffering from a disease or condition associated with or caused by an inadequate level of peroxisomally active catalase, comprising administering to the subject an effective amount of the pharmaceutical composition of claim 20.

47. *(withdrawn)* A method for treating a subject suffering from a disease or condition associated with or caused by an inadequate level of peroxisomally active catalase, comprising administering to the subject an effective amount of the pharmaceutical composition of claim 21.

48. CANCELED

49. *(withdrawn)* . The method of claim 45, wherein the subject is a human.

50. *(withdrawn)* The method of claim 45, wherein the disease or condition is age-related.

51. *(withdrawn)* A method treating for preventing the development of age-related skin wrinkling or other disfigurement, comprising carrying out the method of claim 45.

52. *(withdrawn)* The method of claim 45 wherein said administering is topical.

53. *(withdrawn)* The method of claim 45, wherein the disease or condition is hyperlipidemia, a skin disease, a neurodegenerative disease, an existing ischemic condition or a risk of reperfusion injury subsequent to treatment of the ischemic condition.

54 to 58. CANCELED

59. (***currently*** *amended)* A modified catalase polypeptide according to claim 1 [[2]], wherein the four C-terminal amino acids are encoded by the coding nucleotides from a reverse primer, the sequence of which is SEQ ID NO:18.

60. *(previously presented)* The modified catalase polypeptide of claim 1, wherein, when the polypeptide is contacted with cells *in vitro*, it is imported into peroxisomes at a rate that exceeds the rate of import of native human catalase under the same conditions.

61. *(previously presented)* A pharmaceutical composition comprising:

(a) the modified catalase polypeptide of claim 60; and

(b) a pharmaceutically acceptable excipient or carrier.